CONFIDENTIAL

CLASSIFICATION ~~SECRET~~/

F19 25X1

INTELLOFAX 4

CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

REPORT NO. 13 25X1

CD NO.

COUNTRY	Hungary	DATE DISTR.	28 August 195
SUBJECT	Budapest Area Power Supply	NO. OF PAGES	6
PLACE ACQUIRED		NO. OF ENCLS. (LISTED BELOW)	1 Annex
DATE OF INFO.		SUPPLEMENT TO REPORT NO.	

25X1

25X1

THIS IS UNEVALUATED INFORMATION

25X1

25X1

1. Budapest uses about 50 percent of all electricity produced in Hungary. The supply of the town is primarily the task of the municipal power station. The damage caused during the war, especially in the modern Kelenfoeld power station, has been entirely repaired and since August 1946 the plant has been able to meet the following service peak loads :

1946	1947	1948	1949
120 MV	135 MV	155 MV	180 MV

In late 1945, the power station personnel prepared a development plan for a period of five years. When the national three-year plan was issued in 1947, the plant had only to adhere to the original plan without assuming new tasks.

For proper understanding of the economic and technical problems of energy production it is necessary to know the peak load, which has increased steadily during the last 25 years. Prior to the war the annual increase was 9 percent, during the war 6 percent, in 1947-12 percent, in 1948-10 percent, 1949- probably 8 percent, and after 1950 an annual increase of 6 percent is expected, with a peak load of 200 MV in 1950.

EE CLASSIFICATION ~~SECRET~~/ 25X1

STATE	X	NAVY		NSRB		DISTRIBUTION					
ARMY #	X	AIR #	X	FBI							

CONFIDENTIAL

Document No. 4
No Change In Class. ☐
☐ Declassified
Class. Changed To: TS S (C)
Auth.: HR 70-2
Date: 14/7/78

25X1

2. Capacity of present power plants :

Kelenfoeld : The capacity of the high-pressure power station of Kelenfoeld is 85 to 90 MV. This output is limited by the steam turbines, which are frequently out of service, usually because of their poor foundations. The high-pressure boiler plant would make possible a peak load of 100 to 110 MV after high-pressure boiler No. XII (Ganz-Hanomag system) with a steam output of 45 tons per hour (45 t/hr) has been put in service. The meanpressure plant, which is about 30 years old, reaches a peak load of 20 MV and cannot be used to capacity because of the age of the boiler.

Power station in Revesz ut (street) : 14 MV

Power station in Vaci ut : 6 MV

Power station in Csaky ut : Owing to the unusual frequency of 26 it can only be used for the DC mains within certain limits.

Valuation of the plants mentioned : Heat consumption expressed in kw-h (kilowatts per hour).

Kelenfoeld, high-pressure plant :	4,500 cal/kw-h
Kelenfoeld, mean-pressure plant :	7,000 cal/kw-h
Revesz ut :	7,500 cal/kw-h
Vaci ut :	11,000 cal/kw-h

This table indicates that only the first three plants are capable of permanent supply. An estimated 130 MV produced in plant-owned works may be for Budapest.

3. The electric power station in Banhida :

The Banhida power station is connected with Budapest by a long-distance line and is a very important factor in the supply of the town. Under the contract Banhida must provide the town with 46 MV, but can only deliver 42 MV provided that the plant is not operated on stand-by boilers. The boiler plant is inadequate despite all reconstruction.

4. The electric power station of the Tatabanya colliery :
This plant supplies Budapest with 15 MV, but this supply will decrease steadily as it must increase the supply to industrial customers, especially the aluminum-smelting electrode plant.

This situation will be overcome by the construction of the combined Tatabanya-Dorog line, which is expected to supply an additional 10 to 12 MV.

5. Phoebus power station :

This plant has a capacity of 5 to 10 MV, depending on the quality of the coal, and is kept in service because of inadequate electric mains in the capital.

6. Summary : The municipal power plants :

Kelenfoeld high-pressure plant	90 MV	
Kelenfoeld low-pressure plant	20 MV	
Revesz and Vaci ut plants	20 MV	130 MV
Banhida		40 MV
Tatabanya		15 MV
Phoebus		5 MV
Total energy for Budapest		190 MV

145 MV of this total are supplied by plants with sufficient output. In the Winter of 1948/1949, the available generating sets were just adequate to supply the town, but a generating set of the Matra Works has already been provided for and erected for next winter.

7. The Matra Electric Plant :

Dorog and Tata coal became more and more scarce as a result of increasing demand. It therefore was imperative to resort to the lignite layers on the edge of the Matra Mountains and construct a central power station there. These lignites, which have a heating value of only 1,500 calories, were little used as, in addition to their poor heating value, their transportation costs were very high. They can now be delivered by cable-way direct from their (open cast) working places to the central power station. Four turbo - generators, each of 32,000 kw, will be installed in the power station, in addition to a generator for the station's requirements. Steam is generated in eight boilers. Six boilers and three generators are to be erected under the three-year plan, so that the power station will yield a maximum output of 64 MW or an annual output of 290 million kw-h. The heat consumption is only 3,500 calories per kw-h. It is believed that the first generating set put into operation will save 200,000 tons of good coal per year.

8. Plans for the construction of a new central electric station :

When the Matra central power station was to be constructed, the problem of how long the new power station would adequately meet the energy demand of the town was also discussed. Taking into account only the generating sets which yield an economically sufficient output, the same situation as the present would again arise in 1952/1953. The first plan of the electric works, which had also been included in the three-year plan, but which had to be postponed because of budgetary cuts, provided for the construction of a generating set of a capacity of 30 MW, which was to be put into operation as soon as possible. There are still differences in opinion as to whether such a plant would actually be a fundamental improvement in the supply of energy. The following factors favor execution of this plan :

a. Such a new unit can be constructed at a relatively low cost and can be put into operation quickly when Velox boilers are used.

b. The high-pressure boiler would allow an additional load of another 25 to 30 MV. The high-pressure plant could then be used economically and to capacity.

c. Emergency current is available in case of failure of the long-distance line.

9. The combined system (see Annex) :

a. The Banhida, Tatabanya and Matra plants transmit their current through a 100-kv network which almost girdles Budapest and which is connected to the 30-kv-mains of the capital. This arrangement has the disadvantage of only indirectly connecting the Kelenfoeld Plant via the 30-kv mains. Its advantage lies in the fact that large industrial plants on the outskirts of the town can draw their current directly from the combined network through 100/10 kv transformers.

b. Other work on the network :

The following construction complete or still projected under the three-year plan seems to be noteworthy :

The 100-kv line of the Matra Plant is connected with the 30-kv mains of the capital through the transformer station in Nepliget, which forms one unit with the Simor ut Station, (see attached sketch). It had to be reconditioned as it was obsolete. Thus oil switches were exchanged for air switches and the connections to the 30-kv mains were fitted with induction coils to prevent short circuits. The construction of the transformer station on Saroksa street (30/10 kv), which supplies the industrial plant south of Budapest with current, was completed. Its overhead line is of aluminum. With the whole DC network going to be removed, the DC-distributing stations were no longer renewed. Street lighting was standardized. Tension-rope lamps are the standard type and lamp posts of welded sheet iron were used only when absolutely necessary.

25X1 [redacted] Comment :

1. This information supplements a previous report * and gives exact data on the current supply for Budapest, mentioning that the Tatabanya power station can furnish the town with only 15 MV, as it must concentrate on supplying the aluminum plant. The output of the new Matravidek power plant as stated in this report (capacity of 64 MV and an annual production of 290 million kw hrs) differs only slightly from previous information (capacity of 66 MV and 300 million kw-hr per year).

2. The 6-percent yearly increase in the energy demand in Hungary, a s stated in para 1 of the report, is 1 percent less than the annual increase in the consumption of electric energy estimated for western Germany.

1 Annex : Power Supply of the Budapest Area.

* [redacted] 25X1